

INTERNATIONAL SEARCH REPORT

International application No.

PCT/FI 02/00611

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: D21C 11/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: D21C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4135968 A (GERRIT G. DEHAAS), 23 January 1979 (23.01.79), column 3, line 11 - line 35, figure 1, abstract	1,5-12
Y	--	2
X	US 5174860 A (ADRIAAN R.P. VAN HEININGEN ET AL), 29 December 1992 (29.12.92), column 3, line 10 - line 38; column 3, line 54 - column 4, line 10	3-12
Y	--	2

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

9 October 2002

Date of mailing of the international search report

19 4 -10- 2002

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 Swedish Patent Office
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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3607619 A (HOWARD V. HESS), 21 Sept 1971 (21.09.71), column 2, line 28 - line 75; column 3, line 27 - line 72, abstract -- -----	4,6-12

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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

See extra sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

- I. The invention according to claims 1-2 is directed to a method for treating a portion of a spent liquor stream in a recovery boiler and a portion in a pyrolysis reactor.
- II. The invention according to claims 3-4 is directed to a method for treating the entire spent liquor stream in a pyrolysis reactor.

The two inventions share in common the features regarding pyrolysis of spent liquor obtaining coke of a solid state. However, such pyrolysis is already known from D1, D2 or D3. Except for this feature, there is no common or corresponding feature among the inventions which can be considered as a special technical feature within the meaning of PCT Rule 13.2, second sentence. Therefore, no technical relationship within the meaning of Rule 13 can be seen. Consequently, the inventions, a posteriori, do not satisfy the requirements of unity of invention.

INTERNATIONAL SEARCH REPORT
Information on patent family members

30/09/02

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Patent document cited in search report			Publication date	Patent family member(s)		Publication date
US	4135968	A	23/01/79	US	4338158 A	06/07/82
US	5174860	A	29/12/92	CA	1313577 A	16/02/93
US	3607619	A	21/09/71	AT	300683 B	15/06/72
				BE	742202 A	25/05/70
				CH	526477 A	15/08/72
				DE	1959326 A	11/06/70
				FR	2024520 A	28/08/70
				GB	1267950 A	22/03/72
				JP	51022306 B	08/07/76
				NL	6917974 A	02/06/70
				SE	368812 B	22/07/74
				US	3770574 A	06/11/73